

1 Hour

SESSION III

EYE EXAMINATIONS: DETECTING SIGNS OF DRUG INFLUENCE

SESSION III: EYE EXAMINATIONS: DETECTING SIGNS OF DRUG INFLUENCE

Upon successfully completing this session, the participant will be able to:



- o Overview the major eye indicators of impairment

CONTENT SEGMENTS




A. Detecting Signs of Drug Influence

LEARNING ACTIVITIES

- o Instructor-Led Presentation

| Aids | Lesson Plan | Instructor Notes |
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| <div data-bbox="232 317 302 390"></div> <div data-bbox="191 443 357 478">60 Minutes</div> <div data-bbox="201 699 367 785"></div> <div data-bbox="191 827 305 898">Display III-1</div> <div data-bbox="191 1877 386 1906">HS 178B R2/06</div> | <div data-bbox="430 302 950 373">EYE EXAMINATIONS: DETECTING SIGNS OF DRUG INFLUENCE</div> <div data-bbox="430 443 933 478">A. Detecting Signs of Drug Influence</div> <div data-bbox="462 512 950 1772"> <ol style="list-style-type: none"> 1. The eyes disclose some of the clearest signs of drug influence or medical impairment. <ol style="list-style-type: none"> a. Horizontal Gaze Nystagmus is an indication of possible alcohol influence. b. There are a number of drugs, other than alcohol, that will enhance horizontal gaze nystagmus. c. There are a number of other drugs that will not cause horizontal gaze nystagmus. d. There are other clues that the eyes will disclose, all of which will suggest the presence or absence of drugs or medical impairment. 2. Overview of eye examinations <ol style="list-style-type: none"> a. The eye examinations that you can conduct to assess possible drug or medical impairment include: <ol style="list-style-type: none"> o tracking ability o pupil size o horizontal gaze nystagmus o vertical nystagmus </div> | <div data-bbox="1013 512 1414 653">Ask participants: What is one of the most reliable signs of alcohol influence that can be observed in the eyes?</div> <div data-bbox="1013 1423 1406 1493">Select a student to serve as a demonstration subject.</div> <div data-bbox="1013 1598 1422 1738">Position a stimulus in front of a student's eyes, and check for lack of smooth pursuit across both of the student's eyes.</div> |

| Aids | Lesson Plan | Instructor Notes |
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| <div data-bbox="207 527 370 611" data-label="Image"> </div> <p data-bbox="191 653 305 716">Display III-2</p> | <ul style="list-style-type: none"> <li data-bbox="565 306 951 506">o If the eyes track equally, but jerk while they are moving, then the possible presence of three categories of drugs should be noted. <li data-bbox="565 548 951 1388">o The following categories of drugs enhance horizontal gaze nystagmus: <ul style="list-style-type: none"> <li data-bbox="618 684 894 789">- Central Nervous System (CNS) Depressants <li data-bbox="618 831 829 894">- Dissociative Anesthetics <li data-bbox="618 936 797 957">- Inhalants <li data-bbox="565 999 951 1388">o The following categories or drugs do not cause HGN: <ul style="list-style-type: none"> <li data-bbox="618 1146 894 1167">- CNS Stimulants <li data-bbox="618 1209 862 1241">- Hallucinogens <li data-bbox="618 1283 935 1314">- Narcotic Analgesics <li data-bbox="618 1356 797 1377">- Cannabis <li data-bbox="516 1419 919 1598">d. Pupil Size will be affected by several categories of drugs, and also by some medical conditions or injuries: <ul style="list-style-type: none"> <li data-bbox="565 1629 935 1839">o If the two pupils are distinctly different in size, it is possible that the subject has a glass eye or is suffering from a head injury or a | <p data-bbox="1011 1419 1430 1556">Old head or eye injuries may cause different pupil size, however, this may not depict a medical emergency.</p> <p data-bbox="1011 1629 1430 1808">Point out that it is sufficient to look at a suspect's pupils and estimate whether they look noticeably small, about normal, or noticeably large.</p> |
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|  <p>Display III-3</p> | <p>neurological disorder.</p> <ul style="list-style-type: none"> o If the pupils are noticeably dilated, then the possibility exists that the subject is under the influence of certain types of drugs. o Pupils may be considered dilated if the radius of the pupil is larger than half way to the outside of the iris. o Simply a small portion of the iris is visible. <ul style="list-style-type: none"> - CNS stimulants usually cause dilation. - Hallucinogens usually cause dilation. - Cannabis usually causes dilation. | <p>Explain how to estimate dilation</p> <p>Examples: cocaine, methamphetamine, amphetamine sulfate, etc.</p> <p>Examples: LSD, peyote, psilocybin, MDMA, etc.</p> <p>Examples: marijuana, hashish, hash oil</p> |
|  <p>Display III-4</p> | <ul style="list-style-type: none"> o If the pupils are noticeably constricted, then the possibility exists that the subject is under the influence of a narcotic analgesic. o Generally the pupil is considered constricted if the pupil appears very small and a large portion of the iris is visible. | <p>Examples: Heroin, codeine, demerol, etc.</p> |
|  <p>Display III-5</p> | <ul style="list-style-type: none"> o CNS Depressants, Dissociative Anesthetics, and | <p>Point out that the types of drugs that usually induce nystagmus usually don't affect</p> |
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| <div data-bbox="203 1329 365 1413" data-label="Image"> </div> <p data-bbox="191 1459 305 1522">Display III-6</p> | <p data-bbox="618 304 951 367">Inhalants usually do not affect pupil size.</p> <ol style="list-style-type: none"> <li data-bbox="464 583 951 751">3. The test of horizontal gaze nystagmus for subjects suspected of drug impairment is identical to the HGN test for alcohol impaired subjects. <ol style="list-style-type: none"> <li data-bbox="516 793 915 856">a. First clue - lack of smooth pursuit. <li data-bbox="516 898 915 993">b. Second clue - distinct and sustained jerkiness at maximum deviation. <li data-bbox="516 1035 943 1098">c. Third clue - onset of nystagmus prior to 45 degrees. <li data-bbox="464 1140 932 1276">4. The angle of onset becomes of special interest when a subject is under the influence of a Dissociative Anesthetic. <ol style="list-style-type: none"> <li data-bbox="516 1318 956 1591">a. Dissociative Anesthetics, and high levels (for that individual) of depressants and inhalants can exhibit immediate on-set, i.e., the jerking begins as soon as the eyes start to move toward the side. <li data-bbox="516 1633 943 1833">b. Sometimes, Dissociative Anesthetic-impaired subjects will exhibit resting nystagmus, both eyes jerk while they are looking straight ahead. | <p data-bbox="1013 304 1151 331">pupil size.</p> <p data-bbox="1013 409 1430 541">Major Exception: Methaqualone and Soma, CNS Depressants, will cause pupils to dilate.</p> <p data-bbox="1013 793 1390 856">Ask participants: (What are the 3 clues of HGN)</p> <p data-bbox="1013 1633 1395 1696">Write resting nystagmus on dry-erase board or flip chart</p> |
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| <div data-bbox="203 388 365 472" data-label="Image"> </div> <p data-bbox="191 514 357 619">Display III-7a & III-7b</p> | <p data-bbox="462 367 933 441">5. The Vertical Nystagmus test is very simple to administer.</p> <ol data-bbox="511 651 958 1386" style="list-style-type: none"> Position the stimulus horizontally, approximately 12 -15 inches in front of the subject's nose. Instruct the subject to hold the head still, and follow the stimulus with the eyes only. Raise the stimulus until the subject's eyes are elevated as far as possible and hold in that position for approximately 4 seconds. Watch closely for evidence of jerking. | <p data-bbox="1015 651 1412 934">Point out that vertical nystagmus typically appears in higher levels (for that individual) from the same drug categories that induce HGN - Depressants, Dissociative Anesthetics, and Inhalants.</p> <p data-bbox="1015 1312 1421 1596">Point out that vertical nystagmus was not examined in the research that led to the validation of the standardized field sobriety test battery which includes, the horizontal gaze nystagmus, walk and turn and one leg stand tests.</p> <p data-bbox="1015 1627 1429 1774">Select a student or another instructor to serve as a subject and demonstrate the vertical nystagmus test.</p> |
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